

IN THE CLAIMS

Claim 1 (Currently Amended): A wafer processing apparatus for processing a wafer transferred from a clean box having an access opening to allow accessing an inside of the clean box and a lid to close the access opening wherein the inside of the clean box is separated from a circumstance of the outside of the clean box by closing the access opening with the lid, said wafer processing apparatus comprising:

a chamber pressurized to a pressure higher than a pressure of an outside of the chamber;

a first opening formed on a part of a wall of the chamber for transferring a wafer between the clean box and the chamber through said opening; and

a door member capable of holding the lid of the clean box so as to open or close the access opening and said first opening from an inside of said chamber;

wherein an outer periphery of said door member is larger than a periphery of said first opening to cover a whole part of said first opening from the inside of said chamber,

wherein when said door member closes said first opening to open or close the access opening and said first opening from an inside of the chamber, a first gap is formed between the wall of the chamber and ~~a larger area~~ an outer periphery portion of said door member ~~[[in]] which the outer periphery of said door portion is larger than the outer periphery of said first opening,~~

wherein in said first gap, a flow rate of gas flowing ~~from the chamber~~ from an inside of the chamber to an outside of the chamber through said first gap is substantially equal to a flow rate of gas flowing out from a second gap formed between the clean box and an outer surface of the wall of the chamber.

Claim 2 (Previously Presented): A wafer processing apparatus according to claim 1, wherein a dimension of said first gap and an inside pressure of the chamber are defined such that the gas does not flow into an inside of the clean box through said first gap.

Claim 3 (Currently Amended): A wafer processing apparatus according to claim 1, wherein said door member is closed, said first gap is maintained in gas fluidical communication with an inside and an outside of the chamber.

Claims 4-12 (Canceled).

Claim 13 (Currently Amended): A wafer processing apparatus according to claim 1, further comprising:

one or more gas flow paths formed at least at a vicinity of edges of said door, wherein said first gap is in gas-fluidical communication with said one or more gas flow paths, and

wherein a flow rate of a gas flowing through the gas flow path is substantially equal to a flow rate of the gas flowing from the inside of the chamber to the outside of the chamber through said first opening when the door member is opened.

Claim 14 (Currently Amended): A wafer processing apparatus according to claim 13, wherein the first gap is uniformly formed along a side of an outer peripheral shape of the door member.

Claim 15 (Currently Amended): A wafer processing apparatus according to claim 14, wherein the door member is in substantially the shape of a square.

Claim 16 (Currently Amended): A wafer processing apparatus according to claim 13, wherein the first gap is uniformly formed along a side of an outer peripheral shape of the lid when the lid is inserted through said first opening.